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March 13, 2020

Marlboro Township Planning Board 1979 Township Drive Marlboro, NJ 07746

Re: Mariboro Development Group, LLC/Mariboro Green (PB #1202-20)

Preliminary and Final Major Subdivision and Site Plan -

Engineering / Planning Review #1

Block 213.01 Lot 44

Location: NJ State Highway Route 79, Stevenson Drive and Bucks Lane

Zone: GH1D (Generational Housing 1 District)

CME File No.: HMRP0213.02

Dear Planning Board Members:

Our office received the following information in support of the above-referenced application for Preliminary and Final Major Subdivision and Site Plan approval:

- Preliminary and Final Major Site Plan (21 sheets) prepared by Matrix New World Engineering, Land Surveying and Landscape Architecture, PC dated January 22, 2020, unrevised;
- Preliminary and Final Major Subdivision Plat (1 sheet) prepared by Matrix New World dated January 22, 2020, unrevised;
- Boundary and Topographic Survey (2 sheets) prepared by Matrix New World dated April 3, 2019, unrevised;
- Construction Trailer Location Plan (1 sheet) prepared by Matrix New World dated January 22, 2020, unrevised;
- Sales Trailer and Temporary Signage Plan (1 sheet) prepared by Matrix New World dated January 22, 2020, unrevised;
- Architect Plans Commercial Buildings (2 sheets) prepared by Thomas J. Brennan Architects, undated, unrevised;
- Architect Plans Affordable Apartments (3 sheets) prepared by Thomas J. Brennan Architects dated January 21, 2020, unrevised;
- Architect Plans Townhomes (3 sheets) prepared by Pulte Group Northeast Corridor, dated December 6, 2019, unrevised;

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March 13, 2020

Re: Marlboro Development Group, LLC. /

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 2

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

 Stormwater Management Report prepared by Matrix New World dated January 22, 2020, unrevised;

- Environmental Impact Statement prepared by Matrix New World dated January 22, 2020, unrevised;
- A Development Application and Checklist.

In accordance with your authorization, we have reviewed this application for Preliminary and Final Major Subdivision and Site Plan approval and offer the following comments:

1. Project Description

The subject 13.7 acre property is a corner lot within a GH1D (Generational Housing 1 District) Zone and contains 535 feet of frontage along NJ State Highway Route 79 to the west, 757 feet of frontage along Stevenson Drive to the north, and 199 feet of frontage along Bucks Lane to the south. Currently, the property is vacant/wooded and contains isolated wetland areas. The property is encumbered by a Grade Crossing Easement along a portion of the Stevenson Drive site frontage and a Sight Triangle Easement at the Route 79 and Stevenson Drive intersection. A portion of the Henry Hudson Trail adjoins the property along the easterly property line.

The Applicant is seeking Preliminary and Final Major Subdivision approval to subdivide the property into four (4) new lots consisting of one (1) lot for attached townhome dwellings within 18 buildings, one (1) lot for multi-family affordable housing rental units within one (1) building and two (2) lots for commercial development providing one (1) building each.

The Applicant is also seeking Preliminary and Final Major Site Plan approval for the above outlined development of the property, specifically as follows:

- Lot 44.01 will be 10.7 acres in size and contain 541 feet of frontage along Stevenson Drive to the north and 199 feet of frontage along Bucks Lane to the south. The lot would contain 85 market rate townhome dwellings within eighteen (18) 3-story buildings and four (4) stormwater basins, including a centrally located wet pond basin.
- Lot 44.02 will be 0.8 acres (38,604 s.f.) corner lot providing 142 feet of frontage along Route 79 to the west and 215 feet of frontage along Stevenson Drive to the north. The lot is to contain 20 affordable housing rental units within one (1) three-story building.



March 13, 2020

Re: Marlboro Development Group, LLC. /

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 3

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

 Lot 44.03 will be 1.1 acres (48,405 s.f.) in size and contain 229 feet of frontage along Route 79 to the west. The lot would contain an 8,110 s.f. (76 feet x 100 feet) onestory multi-tenant commercial building.

 Lot 44.04 will be 1 acres (45,330 s.f.) in size and contain 164 feet of frontage along Route 79 to the west. The lot would contain a 4,000 s.f. (38 feet x 100 feet) commercial building, whether multi-tenant is unclear.

Access to the townhome portion of the development is proposed by a full-movement drive along Bucks Lane and a full-movement, boulevard style drive along Stevenson Drive. All buildings are to have access along private internal roadways and 59 on-street parking spaces, including two (2) electric vehicle parking/charging spaces, are proposed with all townhome units to contain a two-car garage with driveway. No roadway connection is proposed between the townhome component and either the commercial or affordable housing components. An apparent full-movement drive is proposed along Route 79 as well as a full-movement drive along Stevenson Drive to provide access to the commercial lots and affordable housing units, respectively, with shared access between the areas. Forty parking spaces are proposed on the affordable housing lot while 42 spaces are proposed on the 8,110 s.f. commercial building lot and 20 spaces proposed on the 4,000 s.f. commercial building lot. Each commercial building is depicted, per the Site Plan, to provide a drive-thru lane. All buildings are to be serviced by municipal sanitary sewer via connection to an existing gravity system within Stevenson Drive and municipal water by connection to existing mains within Stevenson Drive and Buck Lane. Stormwater management for the commercial buildings and affordable housing units is proposed by two (2) underground detention systems discharging to an existing drainage system along Route 79 while the townhome development is to provide three (3) surface area basins and a wet pond basin interconnected and discharging to an existing drainage system with Stevenson Drive. Landscape and lighting improvements are proposed throughout all areas of the development and two (2) refuse enclosures, one (1) each, are proposed to service the commercial and affordable housing areas. Site identification signage is proposed consisting of two (2) column signs along the Bucks Lane access drive, one (1) monument sign along the townhome area access drive along Stevenson Drive and two (2) pylon signs along Route 79 with one (1) at the commercial area access drive and one (1) at the Route 79 and Stevenson Drive intersection. Monument wall signs also appear proposed at the commercial area access drive and the affordable housing access drive. The westerly onsite wetland area is to remain while the two (2) easterly wetland areas are to be eliminated. A sidewalk connection to the adjoining Henry Hudson Trail is proposed from the townhome area.

2. Surrounding Uses



March 13, 2020

Re: Marlboro Development Group, LLC. /

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 4

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

Properties north, south and west of the subject site along Route 79 are zoned C-1 and contain a predominate mix of commercial uses, with scattered residential, agricultural and vacant/wooded parcels, including residential parcels adjoining the site along Bucks Lane. Properties east of the site opposite the Henry Hudson Trail are zoned SCPR containing residential parcels.

3. Zoning Compliance

The subject property is designated within a Generational Housing 1 District per recently adopted legislation New Law Ordinance No. 2019-14, Section 220-XX.1 "Generational Housing 1 District". The table below summarizes the bulk measures and zone requirements of the development per Ordinance Section 220-XX.1.

Overall Tract:

DESCRIPTION	REQUIRED	PROPOSED
Maximum Residential Density	105 units with maximum 20 multi- family	105 units with 20 multi-family
Minimum Commercial Space	8,000 s.f. gross floor	12,110 s.f. ±
Maximum Commercial Space	16,000 s.f. gross floor	12,110 s.f. ±

Attached Single-Family/Townhouse Dwellings:

DESCRIPTION	REQUIRED	PROPOSED
Maximum Tract Area	10 acres	10.7 acres
Maximum Building Height	3 1/2 story/40 feet	3 1/2 story/34.2 feet
Maximum Units per Building	6 units	6 units



March 13, 2020 CME File No.: HMRP0213.02

Re: Marlboro Development Group, LLC. /

Marlboro Green (PB #1202-20)

Page 5

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

DESCRIPTION	REQUIRED	PROPOSED
Minimum Building Setback – Side to Side	20 feet	20 feet
Minimum Building Setback – Front to Back	30 feet	41.8 feet
Minimum Building Setback – Back to Back	45 feet	50.2 feet
Minimum Building Setback – Tract Boundary	15 feet	22.3 feet
Minimum Building Setback- Internal Road/Drive Aisle	15 feet	15 feet

Multi-Family/Mixed Use Building:

DESCRIPTION	REQUIRED	PROPOSED
Minimum Tract Area	20,000 s.f.	38,604 s.f.
Maximum Building Height	3 ½ story/40 feet	3 1/2 story/35 feet
Minimum Building Setback – Route 79	25 feet	28.2 feet
Minimum Building Setback Stevenson Drive	25 feet	86.1 feet
Minimum Building Setback – Other Boundary	8 feet	10 feet
Minimum Building Setback – Internal Road/Drive Aisle	5 feet	11.7 feet



Marlboro Township Planning Board Re: Mariboro Development Group, LLC. /

March 13, 2020

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 6

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

DESCRIPTION	REQUIRED	PROPOSED
Minimum Building Setback- Other Building	25 feet	>25 feet

Commercial Building:

DESCRIPTION	REQUIRED	PROPOSED
Minimum Tract Area	25,000 s.f.	45,330 s.f.
Maximum Building Height	3 ½ story/40 feet	1 story/19.6 feet
Minimum Building Setback – Internal Road/Drive Aisle	2 feet	5.6 feet
Minimum Building Setback – Route 79	60 feet	76.0 feet
Minimum Building Setback – Other Boundary	2 feet	3.9 feet
Minimum Building Setback – Drive Thru Aisle	0 feet	0 feet

Accessory Structures:

DESCRIPTION	REQUIRED	PROPOSED
Maximum Building Height	15 feet	N/A
Minimum Building Setback – Side Yard	3 feet	N/A
Minimum Building Setback – Rear Yard	5 feet	N/A



March 13, 2020

Re: Marlboro Development Group, LLC. /

CME File No.: HMRP0213.02

Mariboro Green (PB #1202-20)

Page 7

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

Parking Area Setback

DESCRIPTION	REQUIRED	PROPOSED
Any Adjacent Property Line	10 feet	15 feet
Any Internal Subdivision Line	0 feet	0.5 feet
Any Commercial Building	0 feet	4 feet
Any Multi-Family/Mixed Use Building	5 feet	8.6 feet
Any Attached Single Family / Townhouse Dwelling	10 feet	10 feet
Any Internal Drive Aisle	0 feet	0 feet
Any Solid Waste/Recycling Facility	0 feet	6 feet

The Applicant has not requested any variances with this application, however, the following relief appears necessary:

- a. Section 220-35D(24)(e) The maximum grade for lawns within 5 feet of a building shall be 10% and for lawns more than 5 feet of building 25% (4:1); greater than 10% within 5 feet of a building appears proposed at the corners and rear of townhome Building 16, along the rear of Building 9 and along a rear portion of Building 8 and 33% (3:1) grading, not associated with a stormwater basin, appears proposed east of the refuse enclosure for the multi-family building.
- b. Section 220-XXC(1) All developments must provide active or passive recreation facilities at a ratio of 50 square feet per dwelling unit.
- c. Section 220-XXG(6) No building shall have an uninterrupted horizontal width of greater than 40 feet without a change in vertical plane of the façade. A step-back or projection with a minimum depth of 18 inches shall be provided; the easterly façade of
- d. Section 220-97B Each off-street parking space shall measure not less than 10 feet by 20 feet; 9 feet by 18 feet parking spaces are proposed at the commercial sites. We note that 9 feet by 18 feet spaces are also proposed at the townhome and affordable housing



March 13, 2020

Re: Marlboro Development Group, LLC. /

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 8

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

sites which would be compliant with Residential Site Improvements Standards (RSIS) Section 5:21-4.15.

e. Section 220-97C(4) — Driveways shall have a minimum width of 20 feet for one-way traffic and 25 feet for two-way traffic for all non-residential single-family uses; 24 foot wide driveways with two-way traffic are proposed at the commercial sites as well as an 18 foot drive for one-way traffic leading to a depicted drive-thru area at the 4,000 s.f. commercial building site (Lot 44.04). We note a one-way drive-thru lane of 12 feet to 15 feet wide depicted at the 8,110 s.f. commercial building and dual 10.7 foot wide lanes proposed at the 4,000 s.f. commercial building drive-thru which should be discussed with the Board.

The Applicant has not requested any design waivers with this application, however, the following relief appears necessary:

- f. Section 220-150D A waiver from strict compliance from the groundwater recharge, stormwater runoff quantity, and stormwater runoff quality requirements of Subsections F and G may be obtained for the enlargement of an existing public roadway, or the construction or enlargement of a public pedestrian access, provided that the following conditions are met:
 - The applicant demonstrates that there is a public need for the project that cannot be accomplished by any other means;
 - ii. The applicant demonstrates through an alternatives analysis, that through the use of nonstructural and structural stormwater management strategies and measures, the option selected complies with the requirements of Subsections F and G to the maximum extent practicable;
 - iii. The applicant demonstrates that, in order to meet the requirements of Subsections F and G, existing structures currently in use, such as homes and buildings, would need to be condemned; and
 - iv. The applicant demonstrates that it does not own or have other rights to areas, including the potential to obtain through condemnation lands not falling under Subsection D(3) above within the upstream drainage area of the receiving stream, that would provide additional opportunities to mitigate the requirements of Subsections F and G that were not achievable on site.

In addition to the above, the board having jurisdiction over an application requiring a stormwater management plan shall have the jurisdiction to grant a waiver from strict



March 13, 2020

Re: Marlboro Development Group, LLC. /

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 9

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

compliance with the performance requirements of Sections 220-147 through 220-158 or the stormwater management plan. The waiver may be granted where an applicant has demonstrated the inability or impracticality of strict compliance with Sections 220-147 through 220-158 and/or the stormwater management plan upon the following conditions. The applicant must demonstrate one of the following:

- g. An inability to apply any of the best management practices and methodologies as defined and approved herein and in the stormwater management plan, due to an extraordinary and exceptional situation uniquely affecting the subject property or structures thereon, resulting in a peculiar and exceptional practical difficulty or undue hardship; or
- h. That the purposes of Sections 220-147 through 220-158 and stormwater management plan can be advanced by a deviation from the best management practices and methodologies as defined and approved herein and in the stormwater management plan, where the benefits of such deviation substantially outweigh any detriment.
- i. In requesting a waiver as to any application, the applicant may submit as reasons for the waiver the site conditions of the proposed project, including soils types; thin soil cover; low permeability soils, and/or shallow depths to groundwater (high groundwater levels), unique conditions which would create an unsafe design, or conditions which would provide a detrimental impact to public health, welfare, or safety.
- j. The waiver cannot be granted due to conditions created by the applicant. If the applicant can comply with the requirements of Section 220-147 through 220-158 and stormwater management plan through reducing the size of a project, the hardship is self-imposed, and therefore the Board lacks jurisdiction to grant any waiver under this section.
- k. The applicant must propose a suitable mitigation method through the submission of a mitigation plan which will conform as closely as possible to the design and performance standards of Sections 220-147 through 220-158, through structural or nonstructural stormwater management measures, governing stormwater quality, quantity, and groundwater recharge. Approval of a waiver or exemption from any one of the three stormwater design standard criteria which include groundwater recharge, water quality, and water quantity provides no guarantee that, if requested, an exemption or waiver will be granted for either or both of the remaining criteria.
- I. Supporting evidence for an exemption or waiver shall be prepared in the form of a stormwater management report which will be signed and sealed by a New Jersey licensed professional engineer. The report shall include at a minimum:



March 13, 2020

\$500.00

Re: Marlboro Development Group, LLC. /

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 10

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

- m. Detailed hydrologic and hydraulic calculations identifying the sizing criteria for each BMP and the stormwater collection system based upon the anticipated peak flow and/or volume.
- n. A map of the planned project showing existing conditions with drainage boundaries and land features, including delineated wetlands, proposed improvements, including all BMPs, grading, utilities, impervious features, and landscaping.
- o. Construction details for each BMP with appropriate contact information.
- 4. The Applicant has not requested any waivers from providing required ordinance and/or checklist submission items and none appear necessary.
- 5. Based on our review of the subject application, we estimate that the following fees are required:

a. <u>Nonrefundable Application Fees:</u> Preliminary Plat Application Fee

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Preliminary Plat Review Fee - \$100 per lot x 92 Lots	\$9,200.00
Final Plat Application Fee	\$500.00
Final Plat Review Fee - \$50 per lot x 92 lots	\$4,600.00
Preliminary Major Site Plan Application Fee	\$50.00
Preliminary Major Site Plan Review Fee	
\$100 plus the sum of: \$2.00 per 1,000 s.f. of affected lot area (93,735 s.f.) + \$25.00 per 1,000 s.f. of new gross floor area (12,110 s.f.) + \$10.00 per new or additional parking spaces (62 spaces)	\$1,110.00
Final Major Site Plan Application Fee	\$100.00
Final Major Site Plan Review Fee	
(50% of Preliminary Review Fee)	\$555.00
Bulk Variance (Residential)	\$250.00
Bulk Variance (Commercial)	\$500.00
Environmental Impact Statement Review	\$400.00
Fee for each new tax lot – 76 to 100 lots	\$2,200.00



March 13, 2020

Re: Marlboro Development Group, LLC. /

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 11

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

Townhouse and Condominium Development 1 to 10 units = \$200.00 + excess of 10 units = \$17.50 per unit (85 Units)

\$1,687.50

b. Professional Services Escrow Fees:

Subtotal: \$21,652.50

Preliminary Major Subdivision (26 to 100 lots)	\$6,000.00
Final Major Subdivision (25 lots or less)	\$3,000.00
Preliminary Site Plan (10,001 to 20,000 s.f.)	\$10,000.00
Final Site Plan (10,001 to 20,000 s.f.)	\$5,000.00
Bulk Variance (Residential)	\$1,500.00
Bulk Variance (Commercial)	\$1,500.00

Subtotal: \$27,000.00

We recommend the Township collect \$21,652.50 in nonrefundable application fees and \$27,000.00 in professional services escrow fees from the Applicant prior to deeming the application complete. In addition, the Applicant will be required to pay all applicable revision fees as stipulated in the Township Ordinances.

- 6. This application is subject to the requirements of the Residential Site Improvement Standards (RSIS) adopted as NJAC 5:21-1 et. seq. The Applicant has not requested any waivers or deminimus exceptions from the RSIS requirements. An agreement to exceed said requirements should be filed with the DCA for any improvements which exceed the RSIS.
- 7. The Applicant should be prepared to discuss the following issues with the Board:
 - a. Compliance with the Generational Housing District requirements per Ordinance Section 220-XX, especially regarding the mix of low and moderate income affordable dwelling units (220-XXD(3)), income limits and bedroom distribution (220-XXD(4)) and building design standards (220-XXD). Compliance with the Generational Housing 1 District requirements per Ordinance Section 220-XX.1 for the specific properties must also be discussed.
 - b. Whether any phased construction of the improvements is proposed.
 - c. Timing associated with the installation and removal of the sales and construction trailers and construction of the model units must be reviewed. Parking associated with the construction trailer should also be reviewed.



March 13, 2020

Re: Mariboro Development Group, LLC. /

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 12

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

- d. Operations associated with the electric vehicle parking/charging spaces, including any restrictions regarding time/duration of parking/charging should be reviewed with the Board.
- e. Whether any fencing along the sides of private rear yard areas, as well as accessory shed structures, would be permitted.
- f. The proposed stormwater management of the site and compliance with NJDEP requirements regarding quantity, quality and recharge must be reviewed. At a minimum, as noted above, the site does not appear to comply with recharge requirements.
- The need for any fencing at the basins.
- The need for a basin access drive to the wet pond.
- i. The need for any bicycle rack at the 4,000 s.f. commercial building.
- j. The effect of the proposed development upon the existing grade crossing easement along Stevenson Drive.
- k. The need for a traffic report, which specifically addresses the following:
 - The proposed improvements along the roadway site frontages including the need for a sight triangle easement at the Bucks Lane and Road C intersection. Our office defers all comment regarding any improvements within the Route 79 right-of-way to the NJDOT.
 - Ingress/egress on Schanck Road (also known as Bucks Lane). Our office has concern with the safety of the additional traffic expected on the street due to the width of the street east of its intersection with Hudson Street.
 - Adequacy of right-of-way along the site frontages. It appears the Right-of-Way halfwidth along the sites frontage is 12-15 feet. Per RSIS, the Right-of-Way half-width should be expanded to 25 feet.
 - iv. The RSIS classification of the internal roadways, and the subsequent need for sidewalk along both sides of the roadway network.
 - v. The need for a profile along the Bucks Lane and/or Route 79 site frontages, as well as the entire site frontage along Stevenson Drive.



March 13, 2020

Re: Marlboro Development Group, LLC. /

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 13

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

- vi. The need for any bypass lane along the drive-thru at the 4,000 s.f. commercial building.
- vii. How many accessible parking spaces are required for the visitor parking spaces in the development and how same will be dispersed throughout the development.
- viii. Adequacy of sight distance for vehicles entering/exiting the guest parking spaces located on the inside of curves due to townhouse placement and proposed landscaping.
- ix. It appears that Road A and Road E are lined up could eventually connect. The Applicant should provide testimony if same is a possibility or if the commercial and affordable housing units will remain separate from the townhouses in perpetuity.
- x. Circulation of large wheel-base vehicles (emergency, refuse, buses, etc.) throughout the sites. Our office would recommend providing a Truck Turning Radius Plan.
- 8. This application may be subject to the following outside agency approvals:
 - a. Monmouth County Planning Board
 - b. Freehold Soil Conservation District
 - c. NJDEP Letter of Interpretation (LOI)
 - d. NJDOT Access Permit
 - e. Marlboro Township Environmental Commission
 - f. Marlboro Township Fire Bureau
 - g. Marlboro Township Police Department
 - h. Marlboro Township Water Department
 - i. All other outside agency approvals as may be required. The Applicant shall address the Board regarding the status of all outside agency approvals for the project. In addition, copies of all outside agency approvals shall be forwarded to our office.

Based upon the minor nature of the information requested, we recommend that this application be deemed <u>complete</u> subject to the Applicant complying with all applicable notification



March 13, 2020

Re: Marlboro Development Group, LLC. /

CME File No.: HMRP0213.02

Marlboro Green (PB #1202-20)

Page 14

Preliminary and Final Major Subdivision and Site Plan

Engineering and Planning - Review #1

requirements as set forth in the Marlboro Township Land Use Ordinance and the Municipal Land Use Law.

Our office has prepared the attached Technical Engineering Review #1. The items contained therein should be addressed by the Applicant's Engineer.

The right is reserved to present additional comments pending the receipt of revised plans and/or the testimony of the Applicant before the Board.

If you have any questions with regard to the above matter, please do not hesitate to call.

Very truly yours, CME ASSOCIATES

X/IX/A/////////

Laura J. Neumann, PE, PP

Planning Board Engineer and Planner

LJN/GAC/pg/BM Enclosure(s)

CC:

Marlboro Township Engineering Department Michael W. Herbert, Esq. - Planning Board Attorney

Marlboro Development Group, LLC – Applicant Matrix New World Engineering, Land Surveying

and Landscape Architecture, PC - Applicant's Engineer/Surveyor

Thomas J. Brennan Architects - Applicant's Architect

John A. Sarto, Esq. - Applicant's Attorney



MARLBORO TOWNSHIP PLANNING BOARD

Marlboro Development Group, LLC / Marlboro Green CME File No.: HMRP0213.02

PRELIMINARY AND FINAL MAJOR SUBDIVISION AND SITE PLAN

March 13, 2020

TECHNICAL ENGINEERING REVIEW #1

A. General

- 1. Verify total number of dwelling units indicated as proposed within the Zone Data Schedule.
- 2. Verify ratio of recreation facility square footage per dwelling unit indicated as proposed within the Zone Data Schedule.
- 3. Verify minimum tract area indicated as proposed for the multi-family/mixed use tract and the commercial tract within the Zone Data Schedule.

B. Grading

- 1. Verify spot grade within driveway for easterly end unit of building.
- 2. Rim elevation for storm manhole MH 3.3 would appear to impede gutter flow.
- 3. Verify FF elevation (140.85) for next to end unit within Building 6.
- 4. Verify centerline grade (139.23) at Road C and D intersection and sidewalk grades (139.42) at north side and (139.54) at south side of same intersection.
- 5. Provide driveway grades near curbline for Building 16.
- 6. Verify grate elevation for Inlet 2.1 between rear of Buildings 16 and 17 which provides a slope grade of approximately 0.1% within swales to same.
- 7. Centerline grade along Road C proposes a 10% grade within 50 feet of the Bucks Lane intersection whereas a maximum grade of 5% is permitted by RSIS.
- 8. Verify sidewalk grades (140.13) and (135.71) at north side of Road B and Stevenson Drive intersection and verify HP spot grade (137.50) near northeast corner of Building 10 to provide positive runoff to Inlet 11.2.



March 13, 2020

CME File No.: HMRP0415.09

Page 2

9. Verify curb grade (137.16) and sidewalk grade (137.00) at west side of Road G and Stevenson Drive intersection.

- 10. Verify curb grades (140.35) and (140.17) along north side of Road F opposite the 8,110 s.f. commercial building.
- 11. Maximum grade for grassed areas indicated within Grading Note #9 should be 4:1.
- 12. Centerline slope grades, high point/low point and vertical curve data as well as centerline by centerline intersection stations and grades should be provided on all road profiles.
- 13. Centerline stations should be added along all roads on the Plans.

C. Stormwater Management

- It appears all the Stormfilter MTDs are proposed on-line, allowing storm events that are greater than the water quality design storm to be bypassed through the treatment unit. However, in accordance with the NJDEP Certification Letter, the Stormwater Management Stormfilter is certified as an off-line system. Any flow above the New Jersey Water Quality Design Storm must be bypassed around the system.
- 2. The Stormfilter Design Summary provided in Appendix I of the Stormwater Report is unclear. Sizing calculations for all proposed Stormfilter MTD devices must be selected based on the peak flow rate of the Water Quality Design Storm for the entire contributory drainage area to the MTD. Additionally, when calculating the flow rate using Natural Resource Conservation Service (NRCS) methodology, the Delmarva unit hydrograph may not be used. The standard unit hydrograph with a peak rate factor of 484 must be used in this calculation.
- The permanent pool volume of the proposed wet pond should be indicated in the Stormwater Report. It appears the inflow drainage area may not be sufficient to maintain the permanent pool volume. The Applicant should verify.
- 4. It states in the Stormwater Report that soil permeability tests were performed throughout the site and the results indicate that the soil permeability on site ranges from 0 to 0.54 inches per hour, which are below the allowable permeability rates for infiltration. In accordance with the BMP Manual, it appears the subject site fails to meet the minimum required design permeability rate (0.5 inches/hour) of the subsoil, which equates to a minimum tested permeability rate of 1.0 inch/hour. It appears a groundwater recharge waiver is required from strict compliance with the performance requirements of § 220-147 through 220-158



March 13, 2020

CME File No.: HMRP0415.09

Page 3

- Revise page 1 of the Stormwater Management Report under "1.0 Project Description" as the site is actually bounded by Bucks Lane on the south.
- 6. Revise the surface stormwater basins to be labeled by number for ease of reference.
- 7. Revise the underground detention basins to be labeled by number for ease of reference.
- 8. Provide details for the proposed underground detention "stormtrap" systems.
- 9. Provide groundwater mounding analysis.
- 10. Provide O&M Manual for proposed wet pond; same shall include comparison of actual vs design approximate drain time for wet pond, clearly state owner and provide valid contact information for them, and note frequency of a clean out cycle.
- 11. Provide water budget consisting of calculated analysis of soil inundation or saturation within 1 foot of the ground surface for consecutive days that represent at least 12.5% of the growing season (approximately 30 days).
- Provide specifications for fountain/aerator and confirmation that sufficient oxygen level for mosquito control will be achieved.
- Confirm proposed perimeter vegetation are water tolerant native species; we suggest 10-15 foot swaths and installed 6-12 inches below permanent pool level, with 6" topsoil provided.
- 14. Verify whether wet pond will be protected by easement, deed restriction, ordinance or other legal measures to prevent its neglect, adverse alteration or removal.

C. Landscaping

- Revise the plans to provide one (1) additional shade tree along Route 79, south of the proposed entrance drive.
- Revise the plans to increase the height of evergreen shrubs to a minimum size of three

 (3) feet, to block headlight glare for oncoming traffic and to shield views of the parking lot.
- 3. Our office has concerns regarding the planting of trees between the proposed townhome driveways, due to tight spatial constraints, underground utilities, light



March 13, 2020 CME File No.: HMRP0415.09

Page 4

fixtures, etc. The Applicant should explore other options in providing street trees with less conflicts.

- Revise the plans to indicate building numbers on the plan sheets, to prevent confusion during construction.
- 5. The Applicant has provided a double row of evergreen trees along the eastern property line. Our office recommends reducing the quantity to provide additional spacing between the trees to allow for air circulation to ensure long term health. Also, one (1) additional species should be provided to increase diversity. The Applicant might consider Green Giant Western Arborvitae.
- Revise the plans to provide an alternate for proposed BN (River Birch) located along the roadways, as this species is a large mature tree and should not be considered an ornamental tree.
- Revise the plans to ensure all proposed FG (American Beech) are provided in open lawn locations as this species has a wide spreading crown and is not appropriate for tight spatial planting locations.
- 8. Shift all proposed shade trees back eight (8) feet minimum, where possible, from proposed curbs and driveway, to reduce potential root/hardscape conflicts.
- Revise the plans to provide shrubs for the base of the proposed site identification signs, to provide a four-season landscape that can be enhanced with seasonal flowers.
- Provide only one (1) TA (Redmond Linden) located at the corner of proposed Building #11, to allow the tree to mature properly. Currently, two (2) TA are proposed.
- Revise the plans to provide a fifteen (15) foot clearance between proposed street trees and light fixtures.
- Revise the plans to provide a call out note that trees located along the wooded areas shall be field located to account for existing trees.
- All extraneous information provided on the plans should be in half-tone, such as clean out locations, underground utilities, etc., for ease of reading the plans.
- Revise the plans to provide all shrubs to be a minimum height or spread of eighteen (18) inches, to enhance site aesthetics.



March 13, 2020

CME File No.: HMRP0415.09

Page 5

15. Revise the plans to provide an alternative for proposed TA (Redmond Linden) due to the species' susceptibility to insect infestation. Our office recommends Silver Linden, as this species has a greater resistance to Japanese beetle.

- 16. Revise the plans to reduce the quantity of trees in the Red Oak family, as Bacterial Leaf Scorch (BLS), a viral disease without a known cure, is present in the area. The Red Oak family is more susceptible to BLS than the White Oak family. Revise the plans to provide an alternative to proposed QR (Red Oak). Our office recommends Swamp White Oak as an alternative.
- 17. Revise the plant schedules to indicate the correct name for proposed LM. The Latin name provided is for what is commonly called Lilyturf; however, the common name in the schedule is for Grape Hyacinth, which is a perennial bulb. Also, the correct cultivar for proposed AS ('White Pearl' Bugbane) should be indicated. Currently, the schedule indicates White Pear.
- 18. It appears street trees have been installed along Stevenson Drive when the residential subdivision was constructed. The Applicant should indicate if these trees will remain.
- 19. Revise the 'Tree & Shrub Planting & Staking' detail, sheet 12 of 21, to indicate rigid, plastic, open mesh trunk guards to protect from the irreparable damage from buck rub. A detail of same should also be provided. Also, our office takes no exception to providing evergreen tree planting stakes only when necessary.

D. Lighting

- Revise the plans to provide a data summary chart, to indicate the average, minimum and maximum light levels for residential roadways and parking areas, for further review.
- 2. It appears the proposed roadways will become Township owned. If so, reduce light levels to an average of 0.40-0.45 footcandles along residential roadways.
- It appears JCP&L will install light fixtures along the roadway. As such, the utility
 company will provide high pressure sodium light fixtures under the light contribution
 rate; however, LED fixtures are currently proposed. This should be reviewed and
 revised.
- Light levels at the entrance from Route 79 to the commercial property appear to be under 0.50 footcandles. This should be reviewed and revised.



March 13, 2020

CME File No.: HMRP0415.09

Page 6

- Revise the plans to indicate proposed timers and hours of operation. Also, indicate proposed color and finish for all fixtures.
- 6. Revise the plans to provide catalog cuts and full ordering information for proposed light poles, ot prevent confusion during construction.
- Revise the plans to provide isolux patterns and details, to include a scale and graph.
- 8. Revise the lighting details, sheet 20 of 21, to clarify proposed residential light fixture as the notes appear to indicate two different products.

E. Woodland Management

- 1. Revise the plans to provide a note that a tree removal permit shall be secured prior to any site disturbance, in accordance with Section 337-15.
- 2. Revise the plans to graphically depict and specifically locate tree protection fencing at the limit of disturbance and provide a detail, in accordance with Section 337-16.
- Revise the plans to provide tree removal calculations with replacement requirements, in accordance with Section 337-19C
- Revise the 'Construction Sequence', sheet 16 of 21, to indicate the timing of tree protection fence installation and removal, to prevent confusion during construction.

F. ADA

We defer compliance with ADA requirements to the Construction Code Official. At a minimum, our office recommends that the 'Handicap Parking Stalls' detail, sheet 20 of 21, be revised to indicate a five (5) foot wide accessible aisle with standard stalls eight (8) feet wide and van accessible stalls eleven (11) feet wide, in accordance with the current preferred standards. The plans should depict same.

H. Environmental

- Revise the plans to depict the location and depth of seasonal high water table for each soil profile log as noted by Terracon report dated September 4, 2019.
- Submit a preliminary site investigation report in accordance Ordinance §220-159.1, that indicates historical information on the previous uses of the site and identifies any areas of concern that may warrant soil testing.



Marlboro Township Planning Board Re: Mariboro Development Group Co., LLC/

Mariboro Green (PB #1202-20) Technical Engineering Review #1

March 13, 2020 CME File No.: HMRP0415.09

Page 7

Provide the Averaging Plan type of transition area waiver, as outlined within the Freshwater Wetlands Protection Act Rules (as found at NJAC 7:7- 8.2), to this office once received from the NJDEP for our files.

4. Provide the Line Verification type of Letter of Interpretation to this office once received from the NJDEP for our files.

١. Traffic

- 1. Verify regarding the drive-thru lane at the 8,110 s.f. commercial building as depicted on the Plans, however, not indicated for same within the Narrative Description of Application,
- 2. Verify parking count within the parking area east of the affordable housing building.
- 3. Provide a typical parking stall dimension within the Townhome development area.
- 4. Provide a typical section detail for the townhome driveways. The RSIS requires a driveway to be a minimum of 18 feet long between the face of the garage and the right-ofway per § 5:21-4.14 (d) 3. It is not clear exactly where the right-of-way is but there are multiple townhouses that depict a driveway that is not 18 feet long between the garage and the sidewalk. Applicant should attempt to shift the townhouses (approximately 15) or roads slightly to allow for an 18 foot long driveway between the face of the garage and the sidewalk.
- Our office recommends speed limit signs be provided at the entrances to the development.
- Detectable Warning Surfaces should be depicted on the Site Plan.
- Additional detail should be included to depict how the Belgian Block Curb will be transitioned from Full Height Curb to Depressed Curb as well as 4" Mountable Curb to Depressed Curb.
- The Mountable Belgian Block Curb Detail should depict the change in height along the slope of the granite block.